

FIG. 2

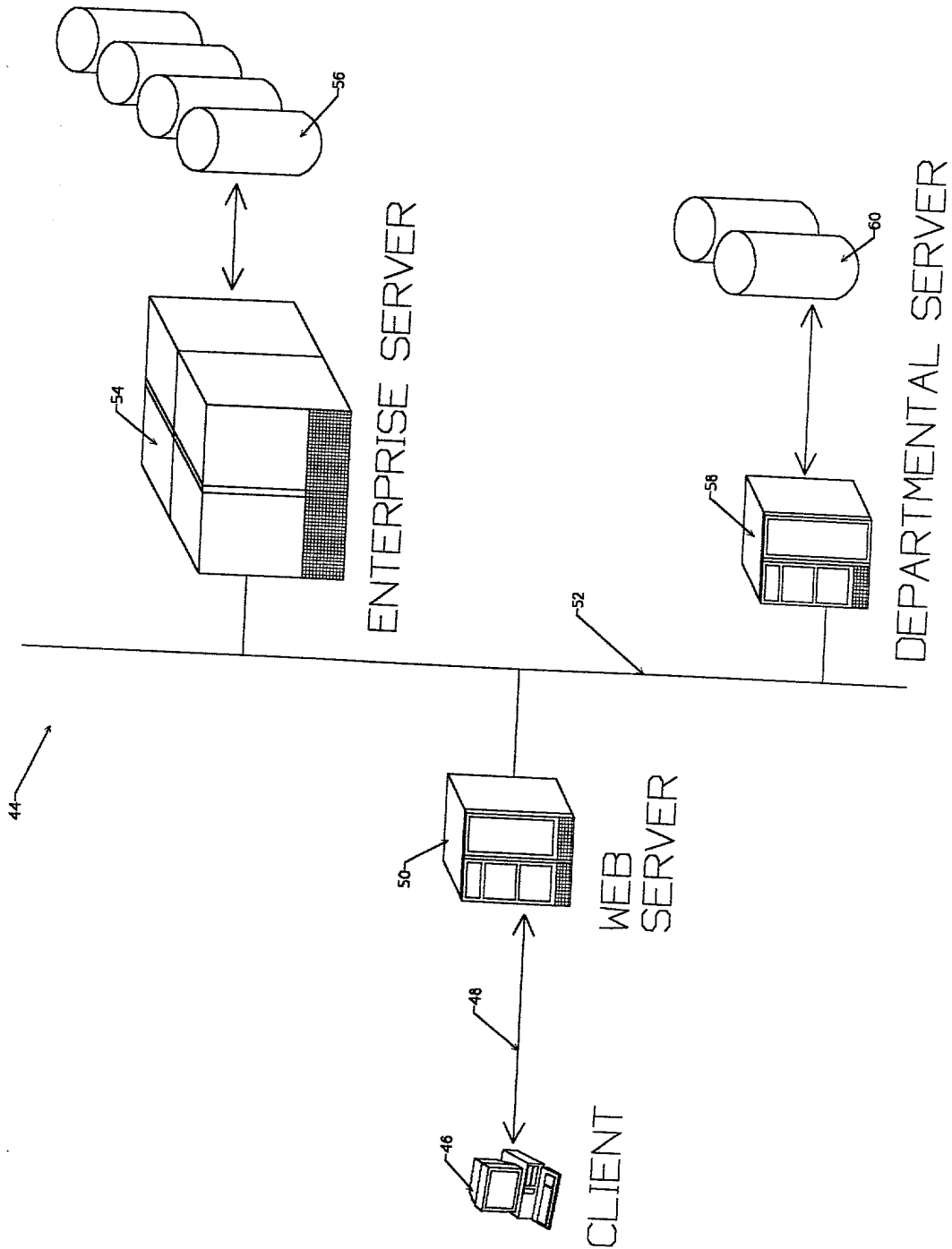


FIG. 3

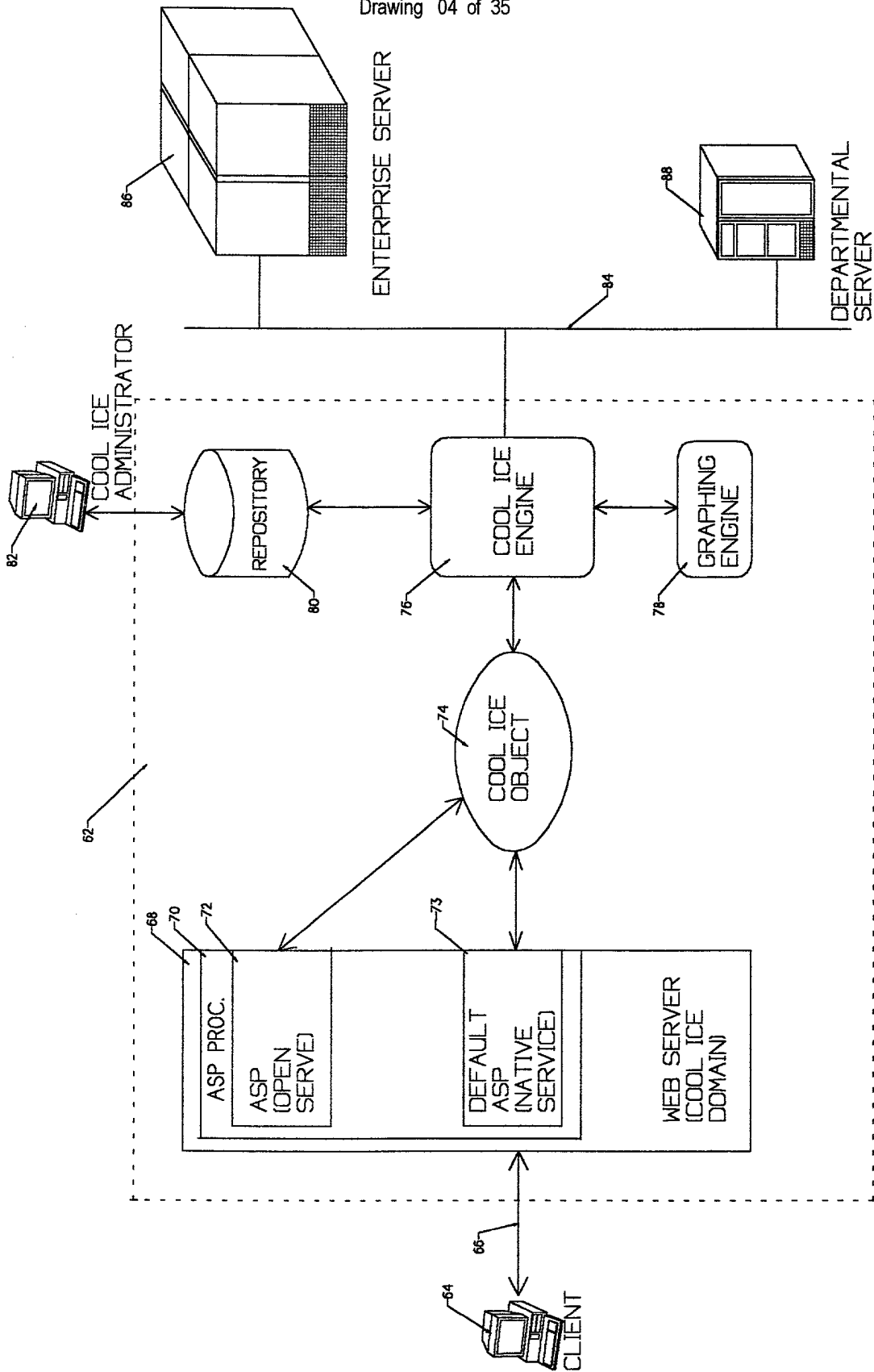


FIG. 4

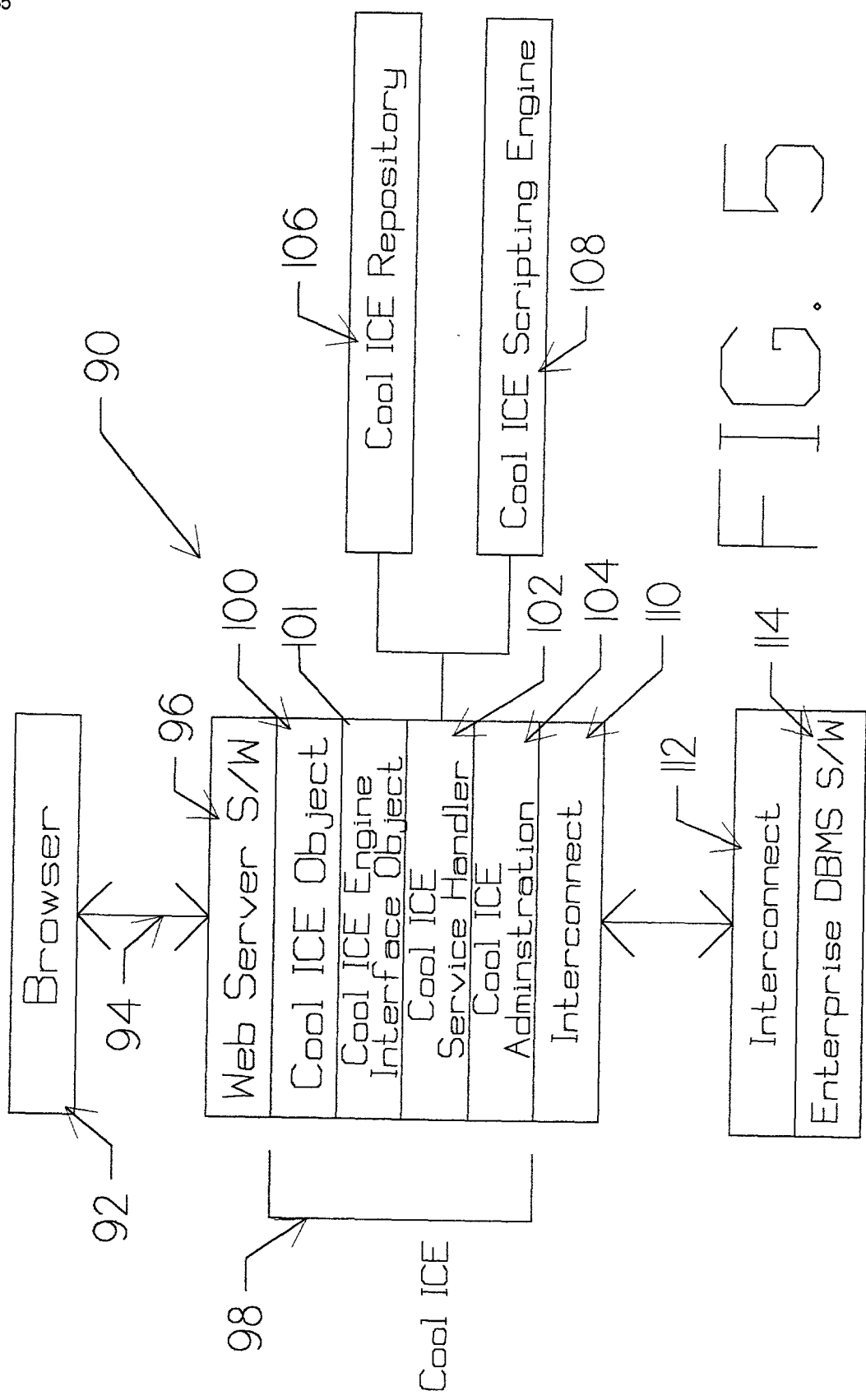
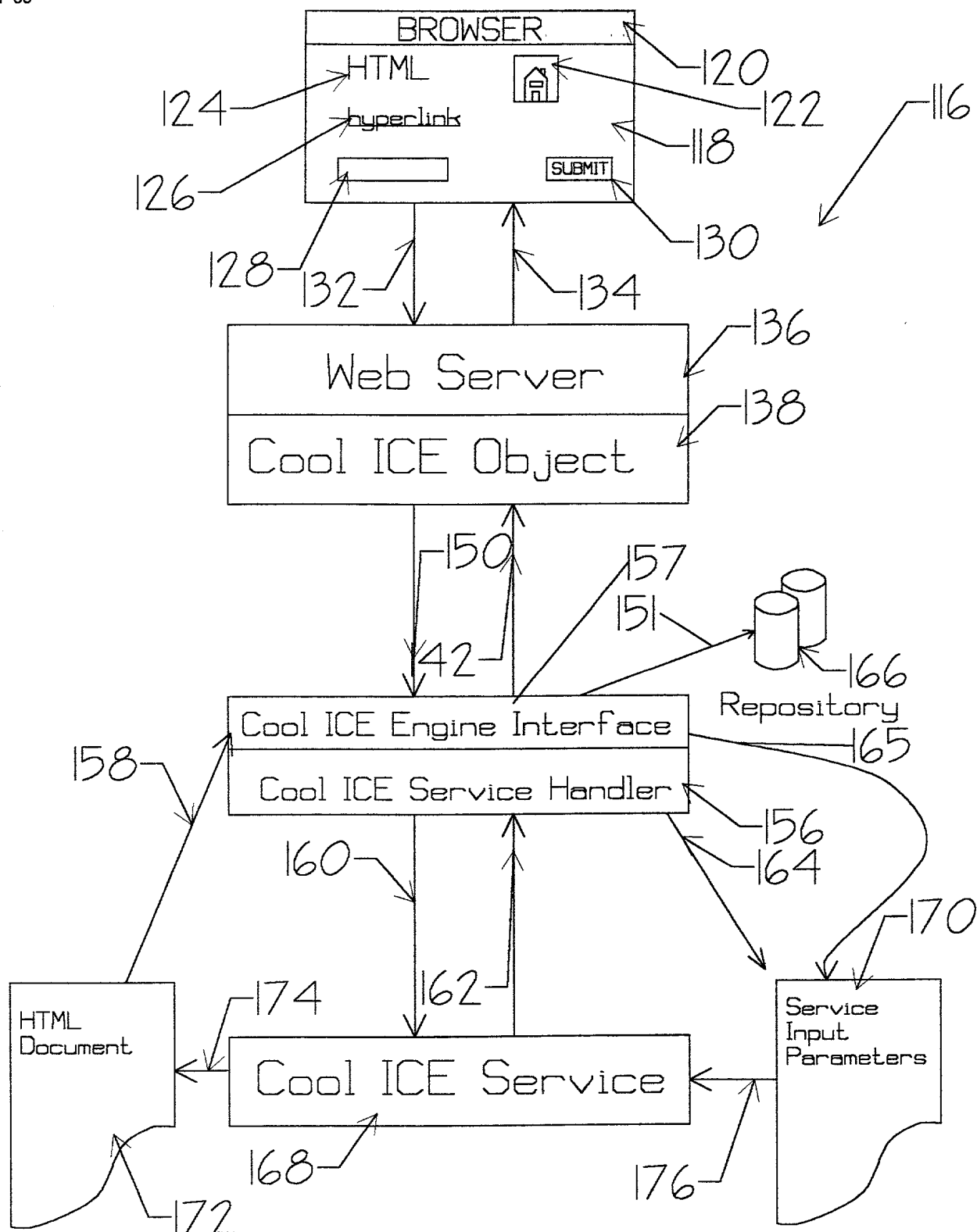


FIG. 5



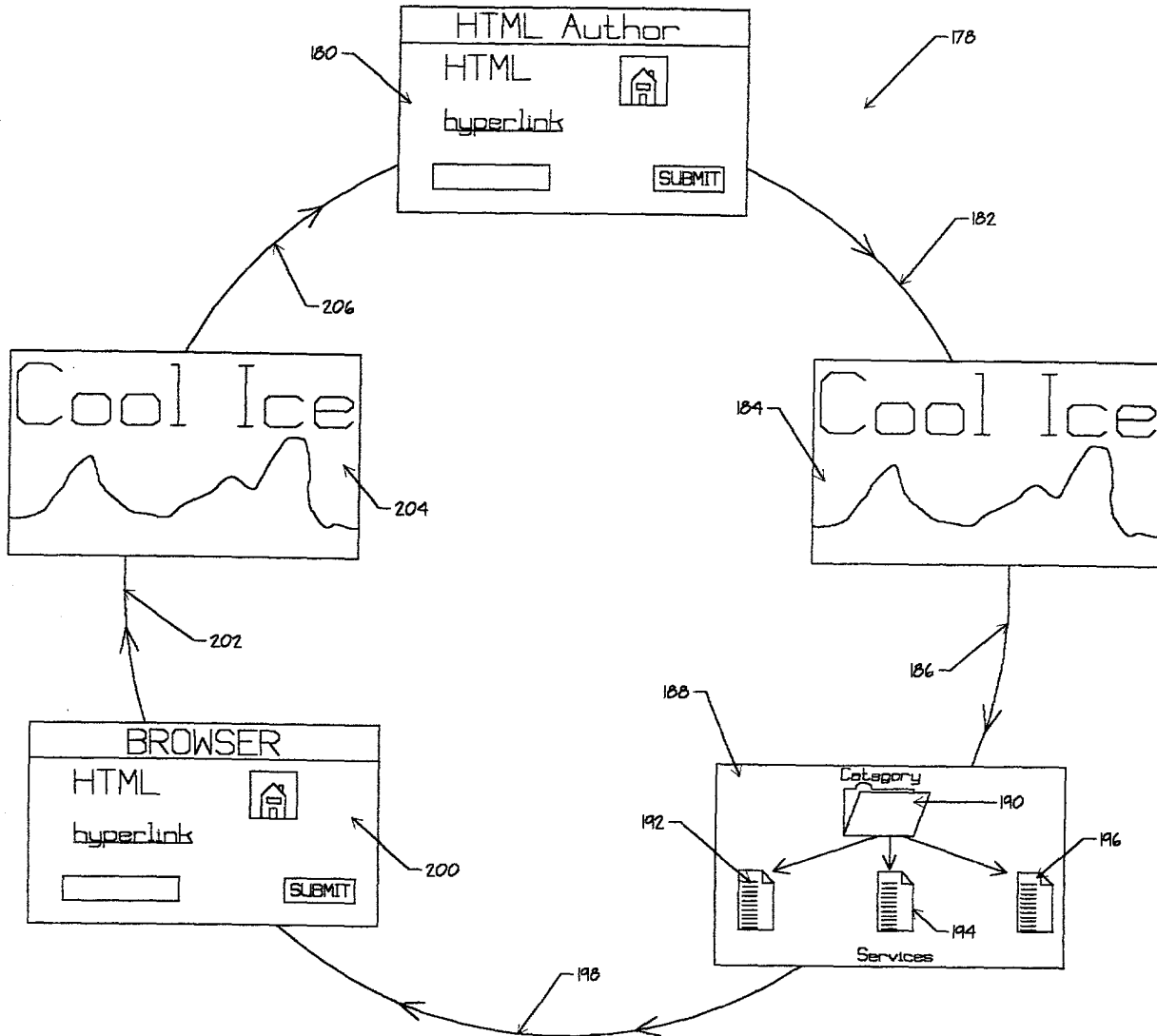


FIG. 7

Patent Application No. RA-5411 (33012/329/101)

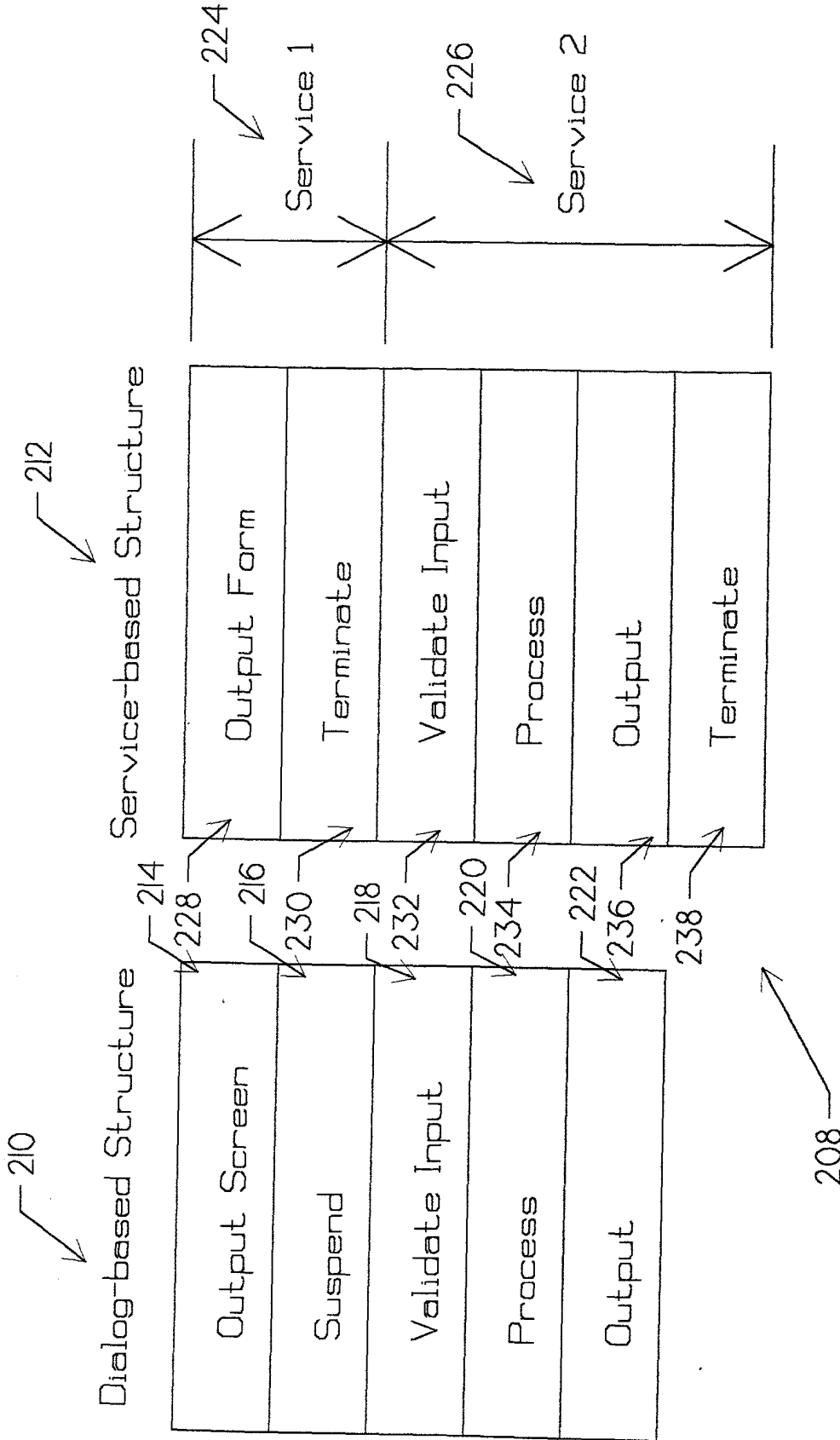


FIG. 8

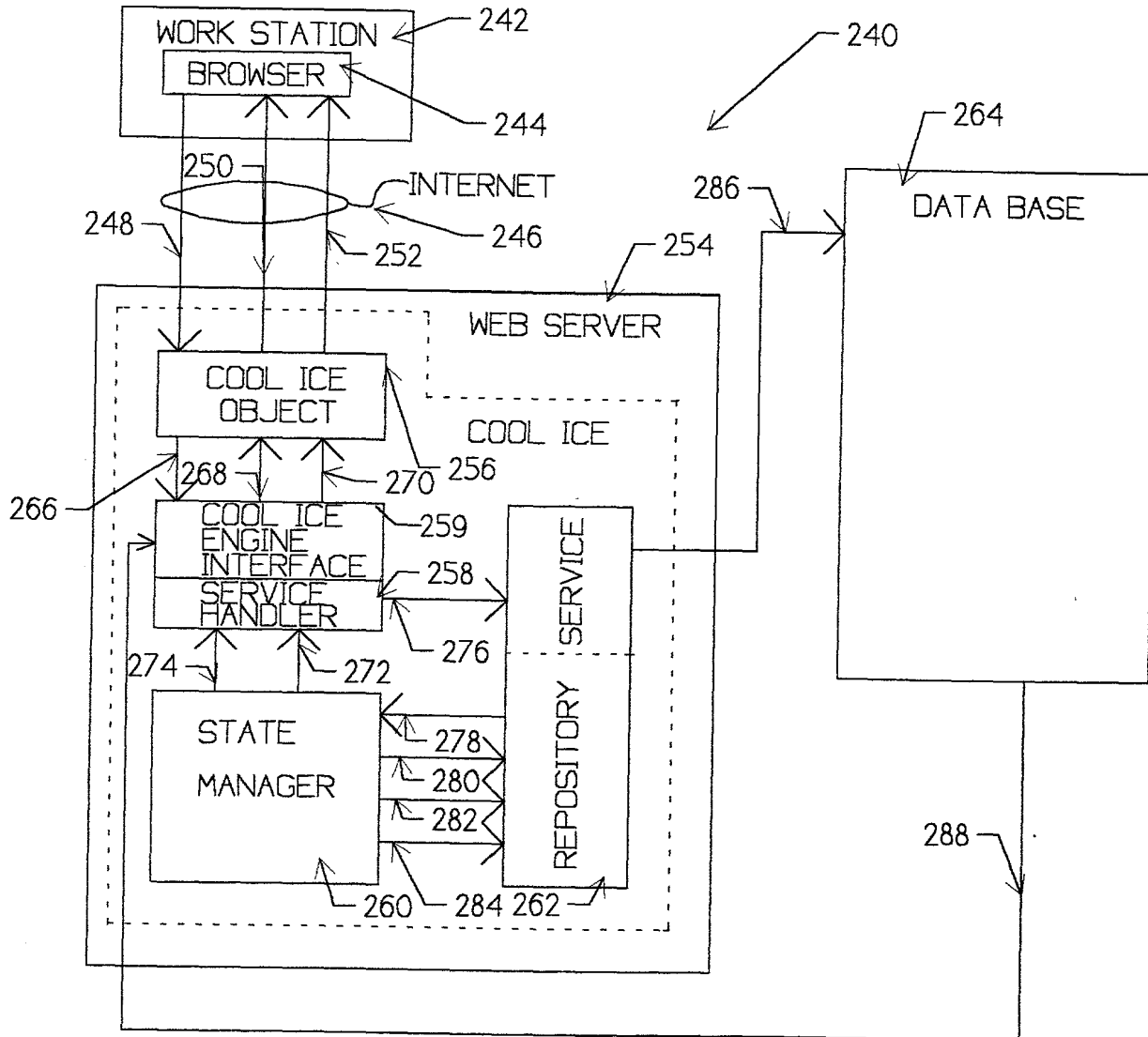


FIG. 9

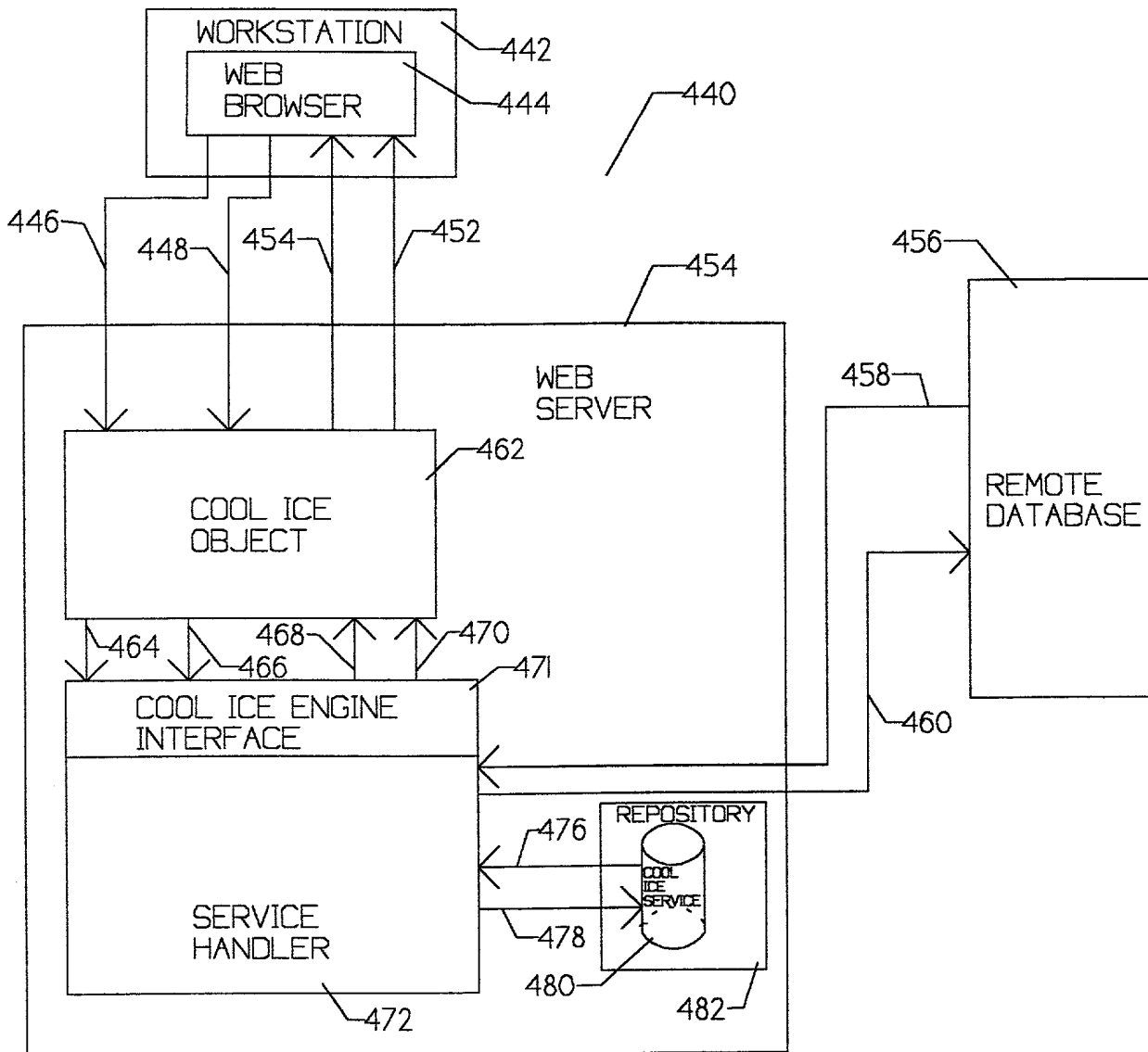
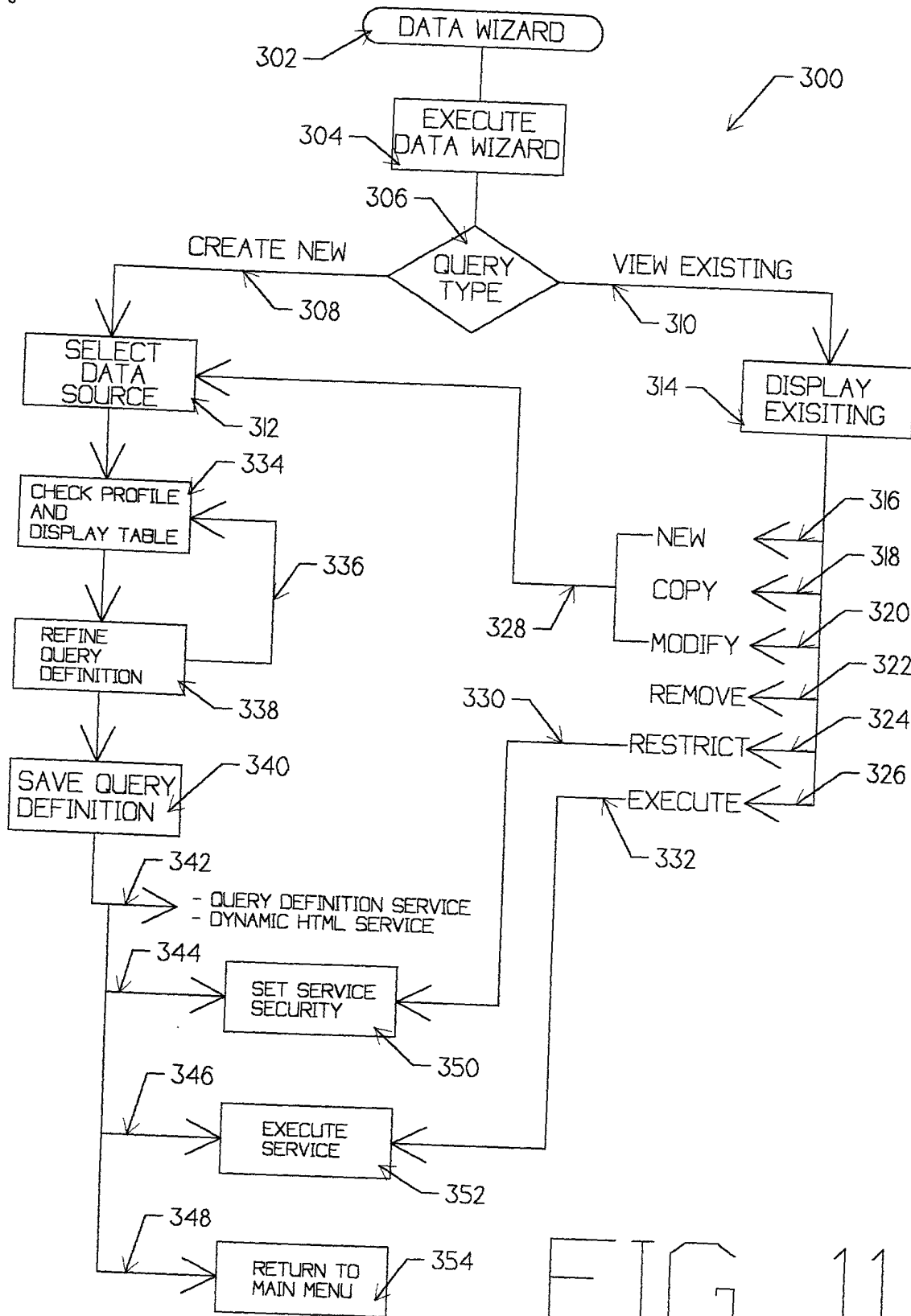


FIG. 10



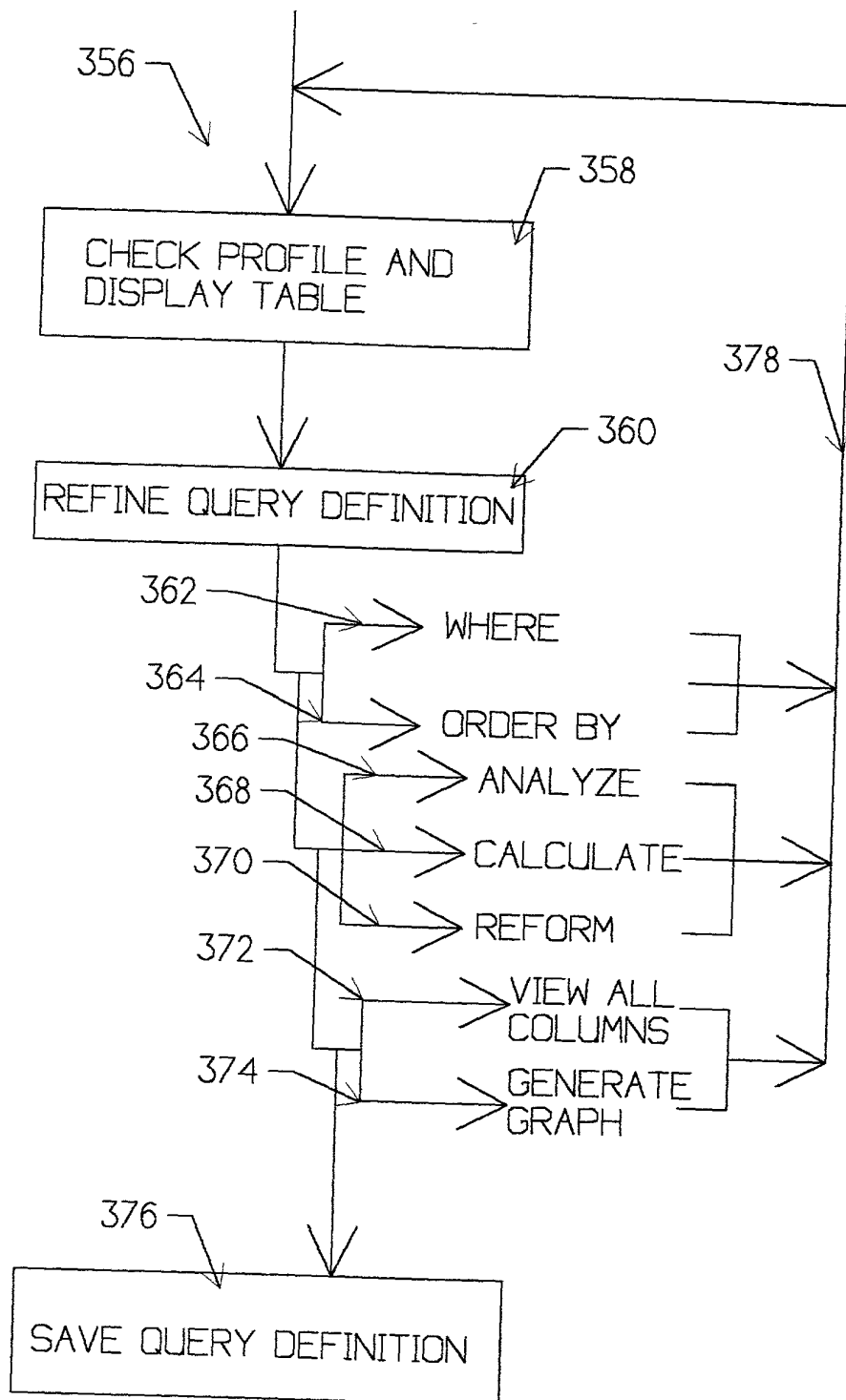


FIG. 12

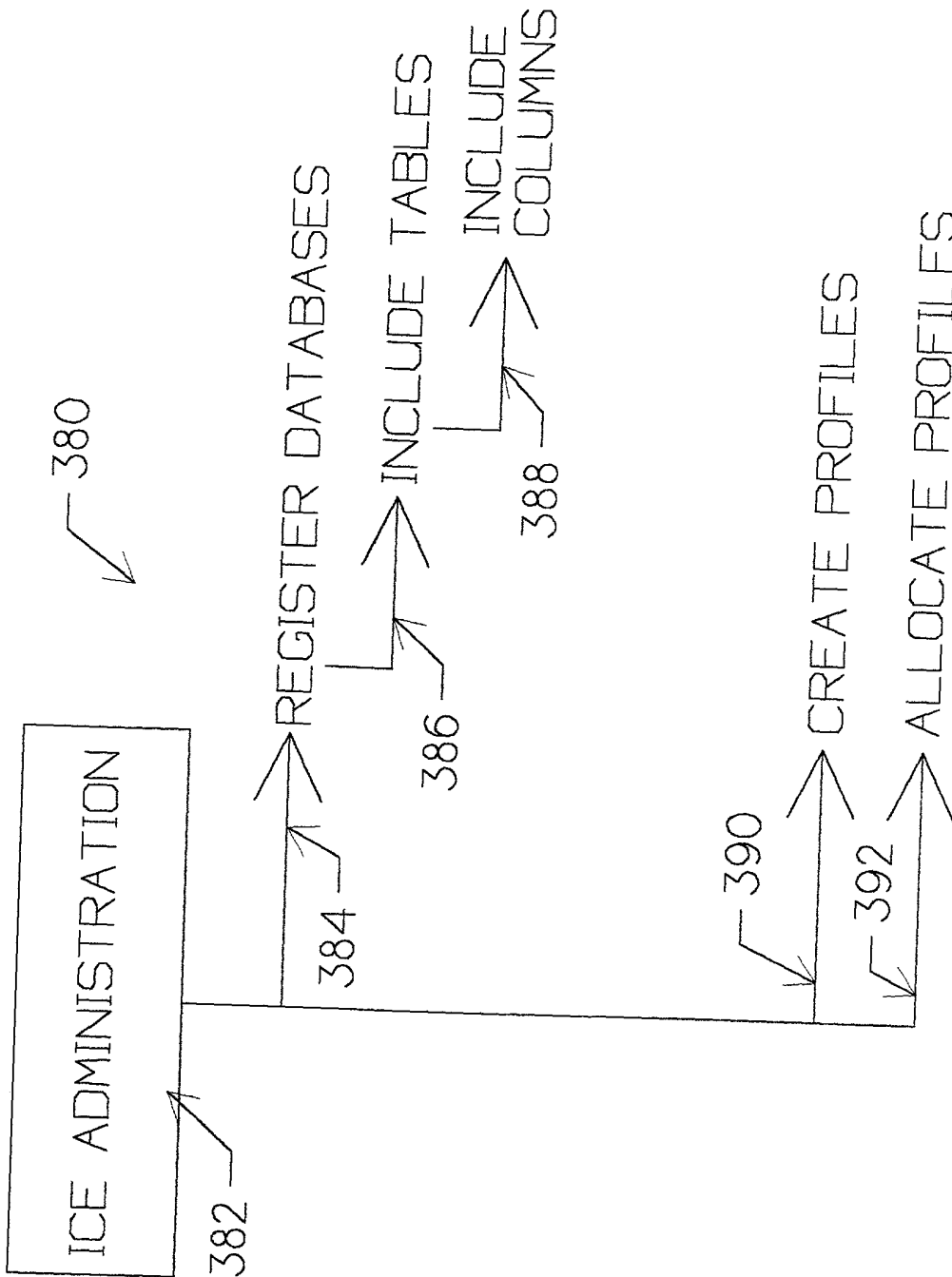


FIG. 13

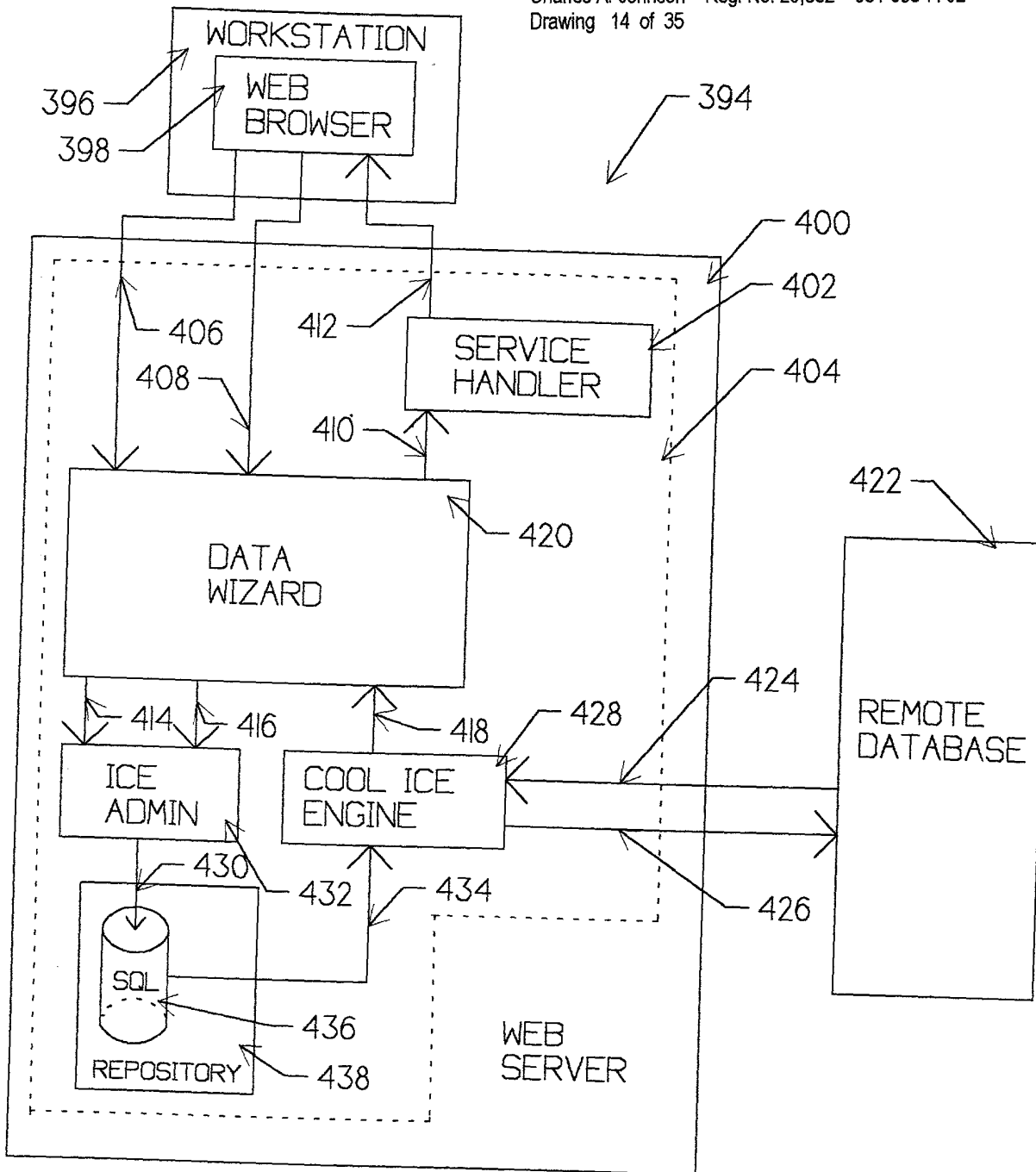


FIG. 14

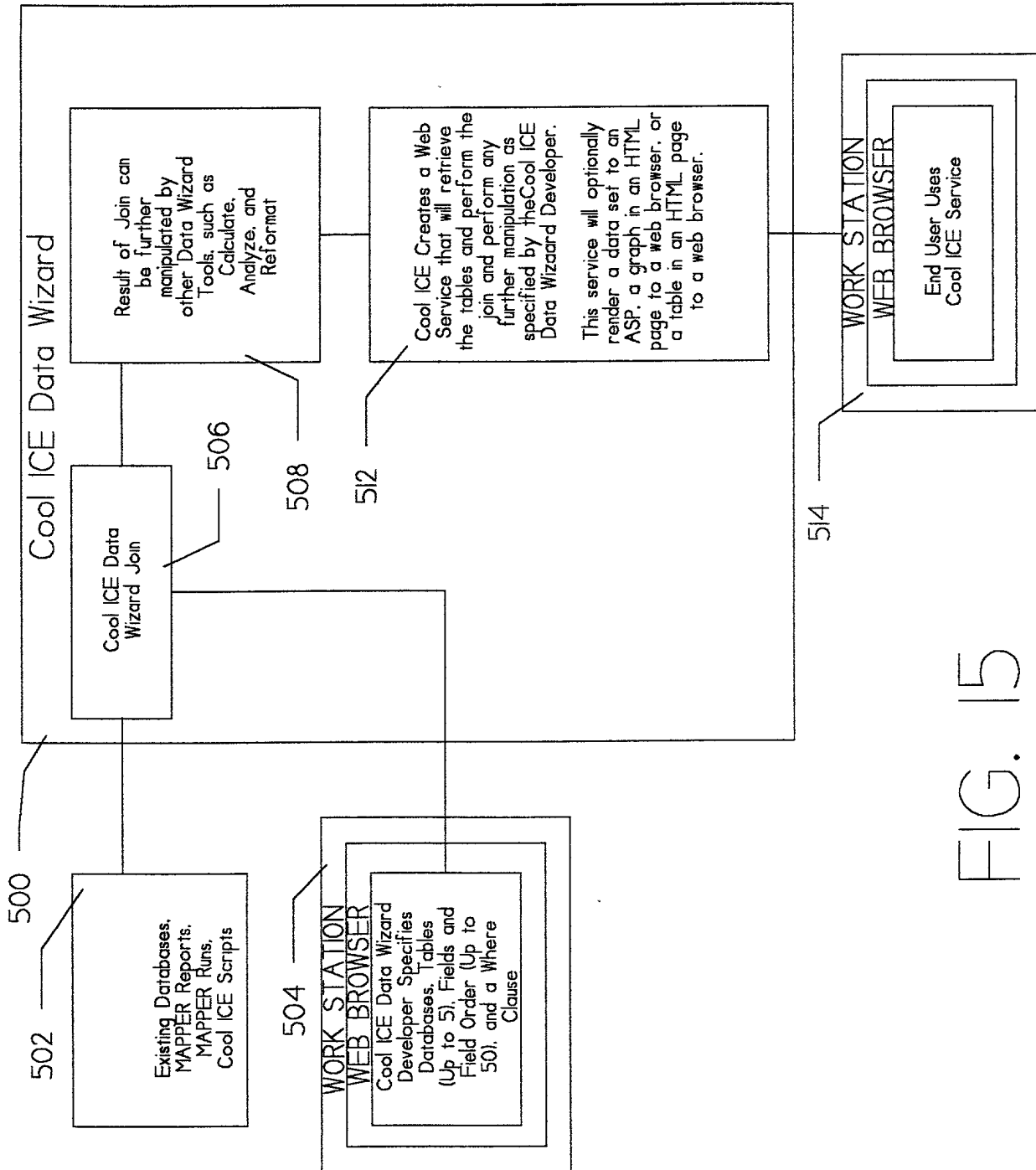
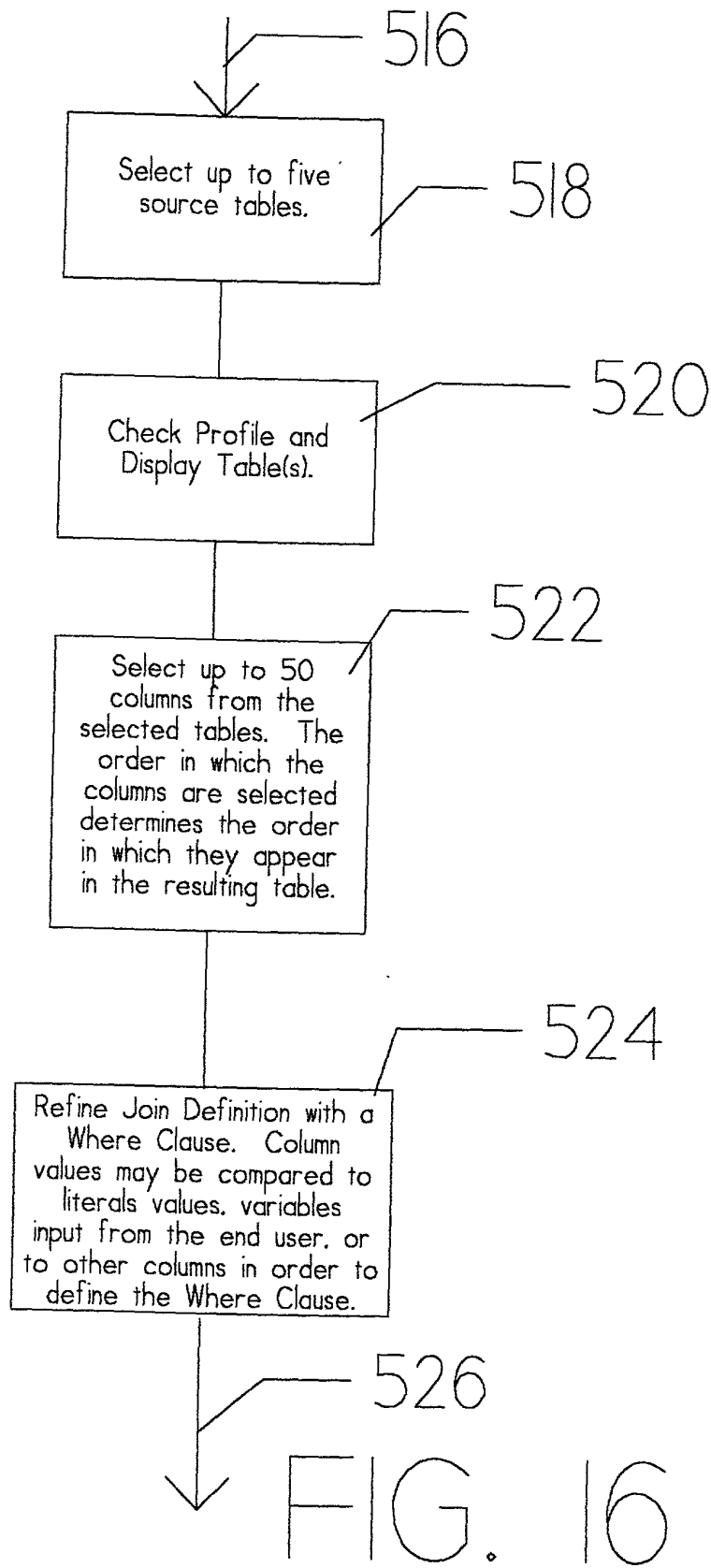


FIG. 15



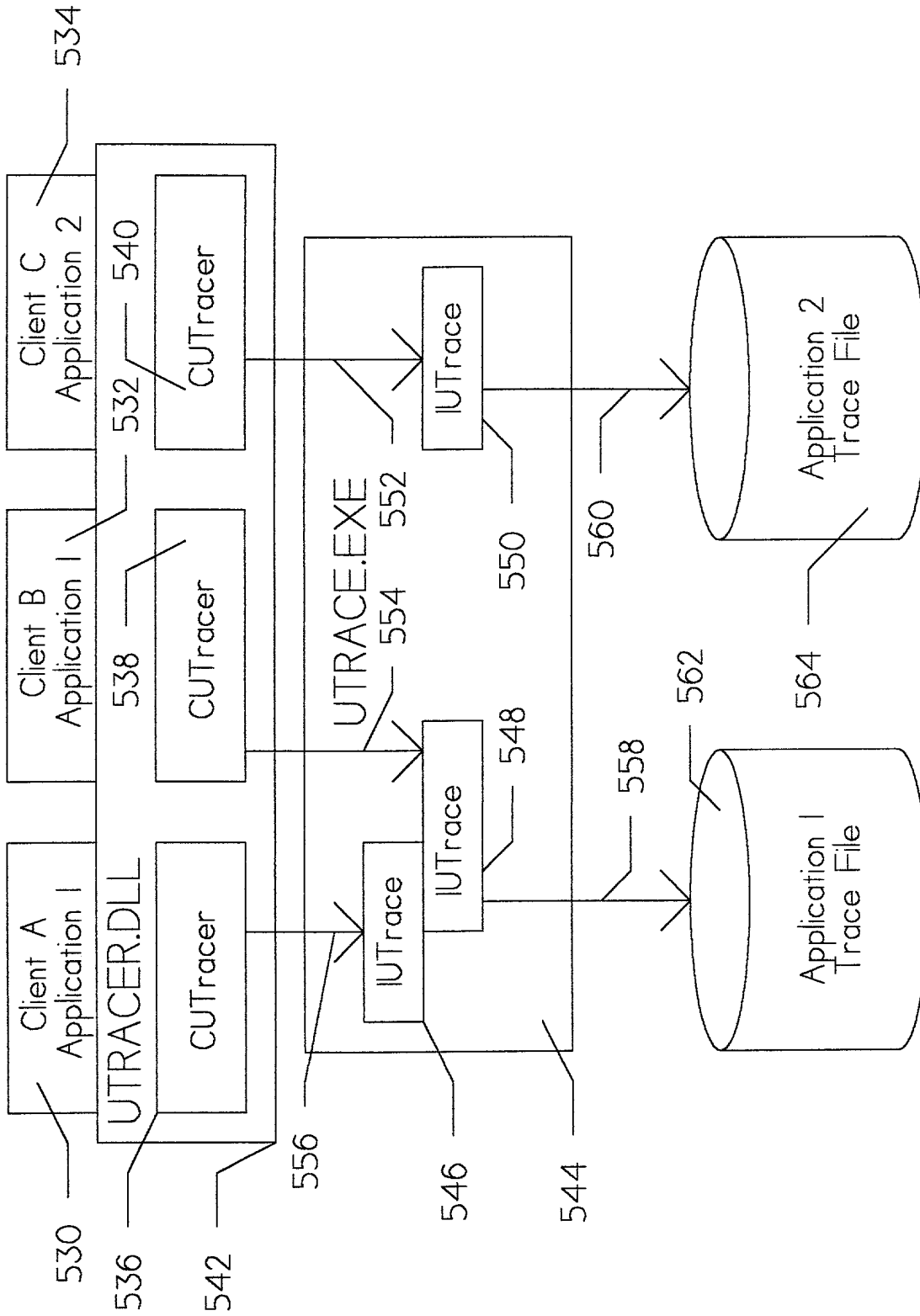


FIG. 17

Patent Application Express Mail No. 2100112200
Filing Date: 12/21/2001 Customer Assignment No. 27516
Attorney's Docket No. RA-5411 (33012/329/101)
Application: Thomas N. Turba et al.
Charles A. Johnson Reg. No. 20,852 651-635-7702
Drawing 18 of 35

HKLM\SOFTWARE\UNISYS\UTRACE

APPNAME -- Subkey matching the name of the application

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ENABLETRACE	--	DWORD	value indicating a Boolean (1=trace, 0=no trace).
MAXENTRIES	--	DWORD	value indicating the maximum number of entries in the trace file. If missing, then no upper limit is imposed.
FORMATFLAGS	--	DWORD	value indicating message formatting flags.
POLICYFLAGS	--	DWORD	value indicating trace policy flags set for the application.
TRACELEVEL	--	DWORD	value indicating a trace level, 0 = no trace.
TRACEPATH	--	String	value indicating the directory path for the trace files.
REGTRACE	--	String	value containing the HKLM\Software sub key to trace for this application. Blank or missing for no registry trace.
COMPONENT	--	String	value for a specific component of the application.
POLICYFLAGS	--	Value	indicating component level trace policy flags
TRACELEVEL	--	DWORD	Value indicating a trace level, 0 = no trace.
VERSIONTRACE	--	String	value specifying executable component name for version information tracing.

FIG. 18

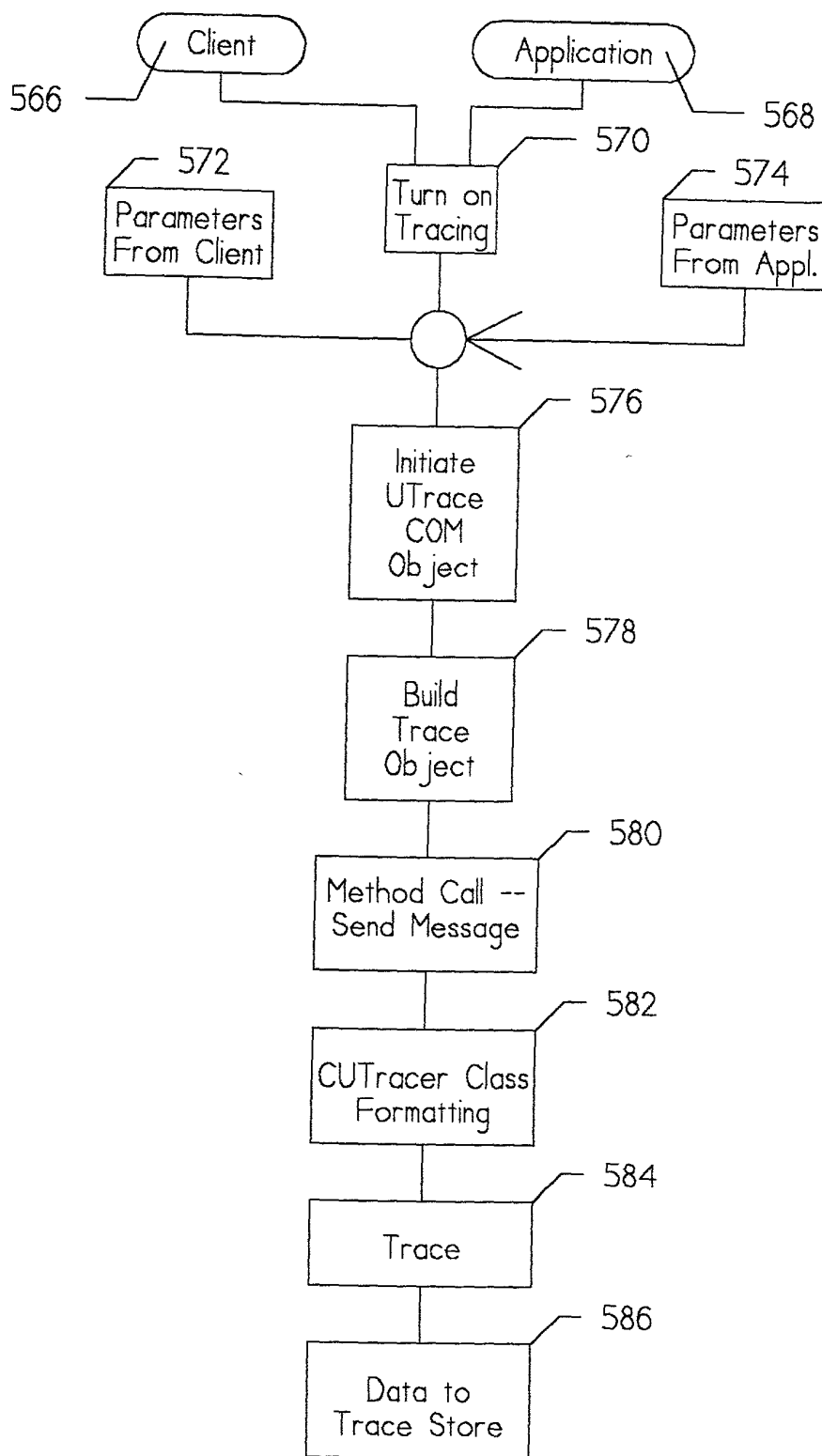


FIG. 19

```
#define CI_TRACE_VERSION      0x1  
#define CI_TRACE_ERROR       0x2  
#define CI_TRACE_INTERFACE    0x4  
#define CI_TRACE_FLOW         0x8  
#define CI_TRACE_DETAIL       0x10
```

FIG. 20A

```
if (m_trace.Active(CI_TRACE_DETAIL))  
m_trace<<"MY Detailed Trace information"<<Localvariable<<traceit
```

FIG. 20B

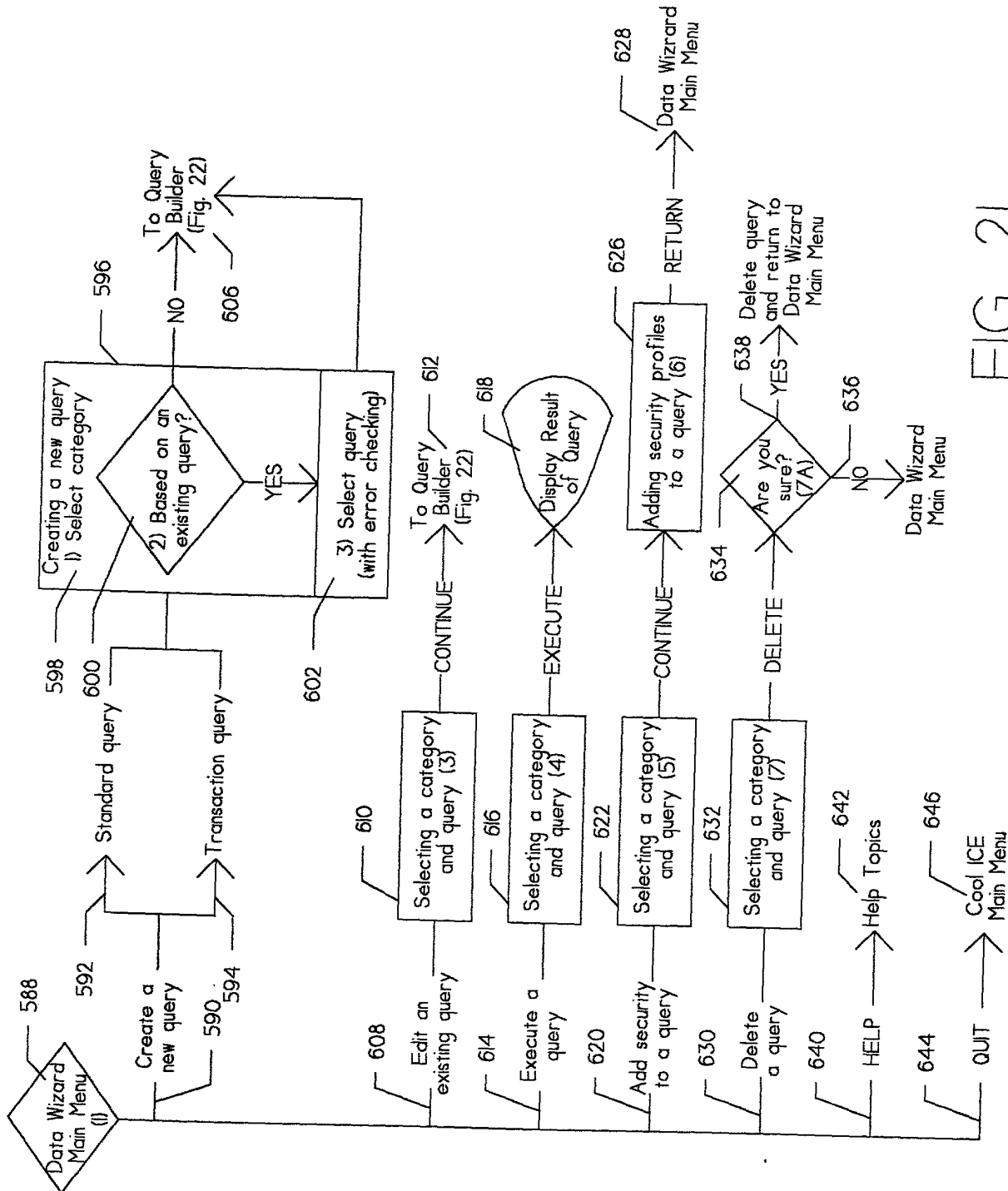


FIG. 21

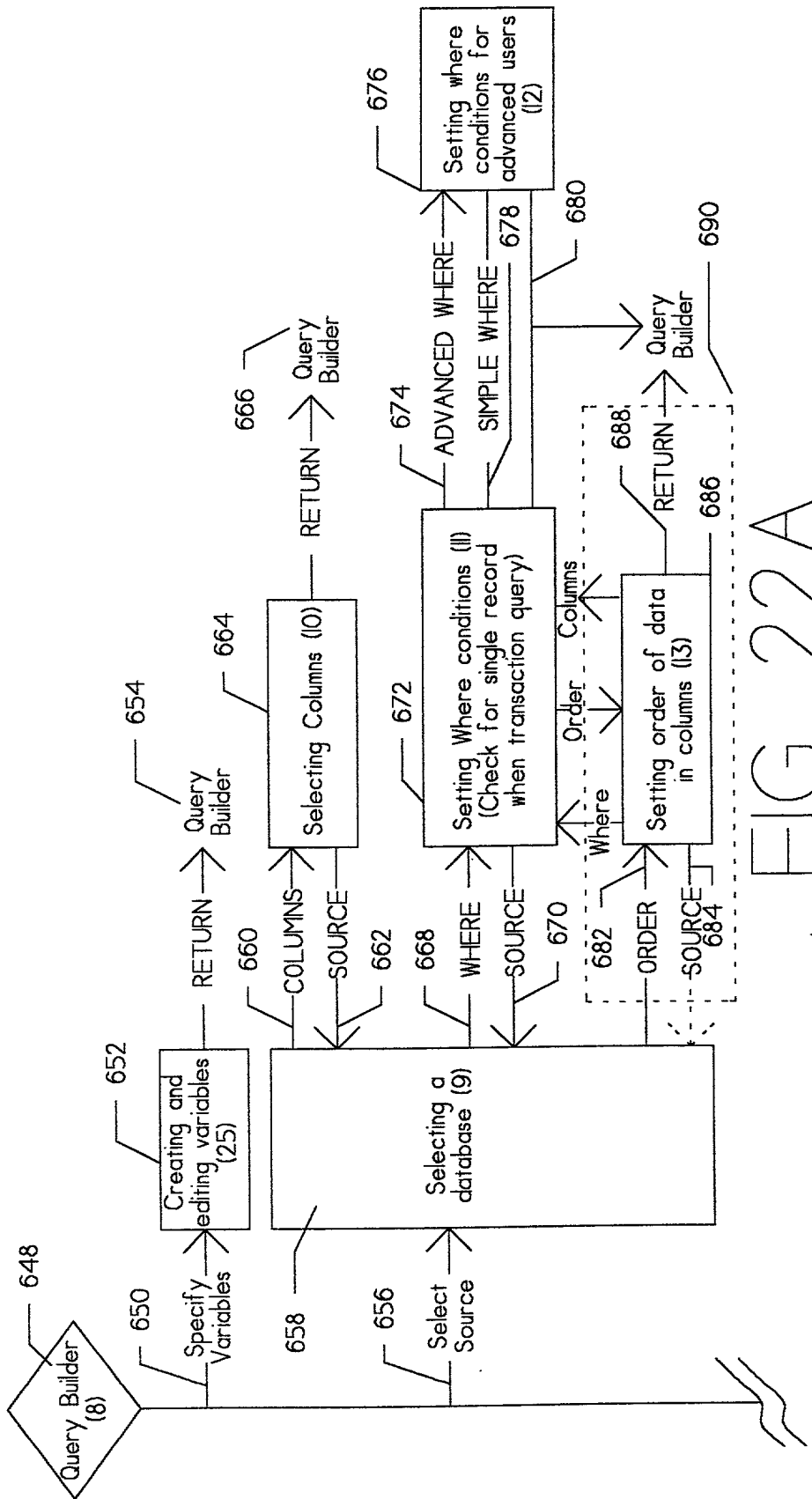


FIG. 22A



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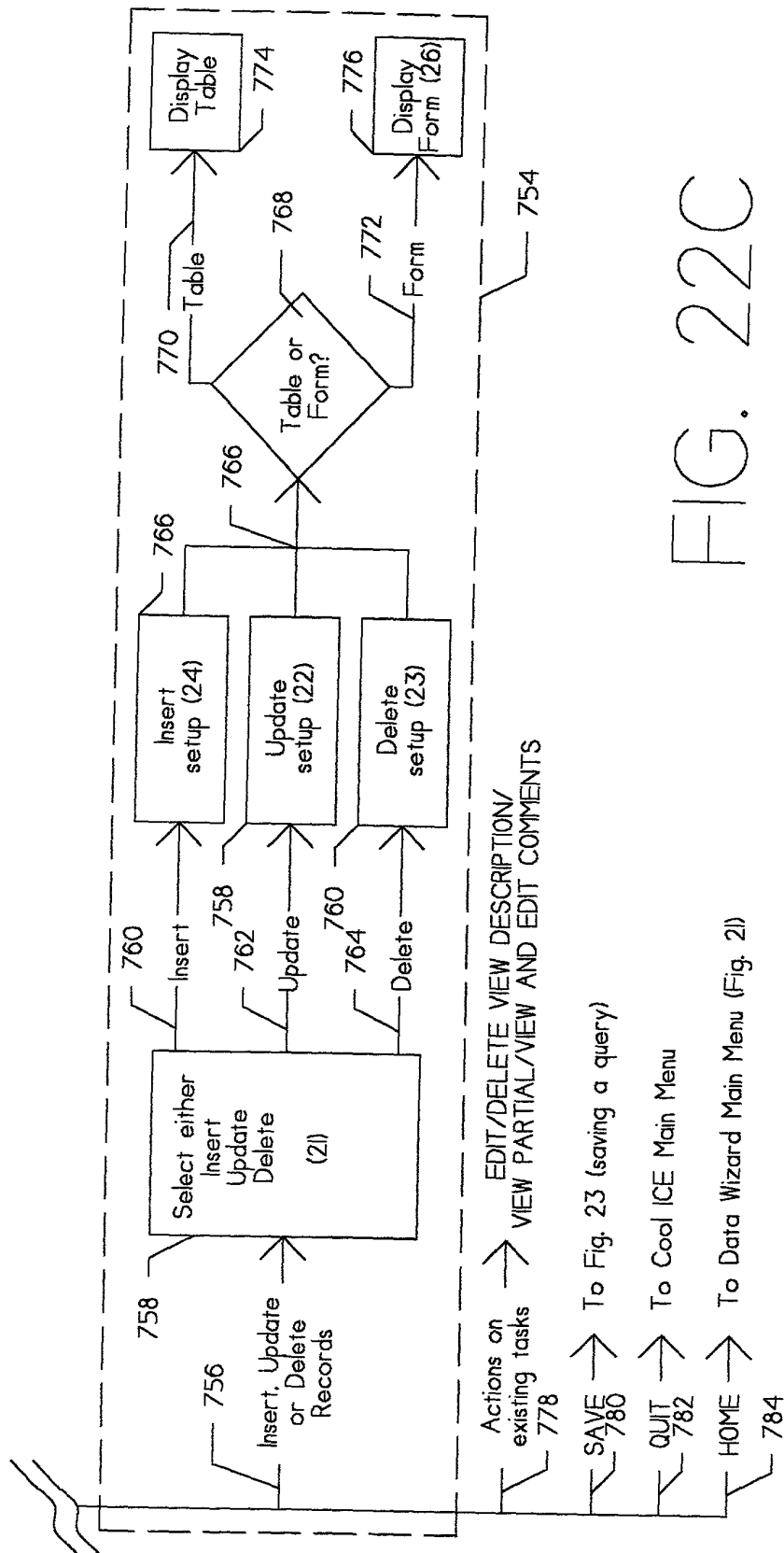


FIG. 22C

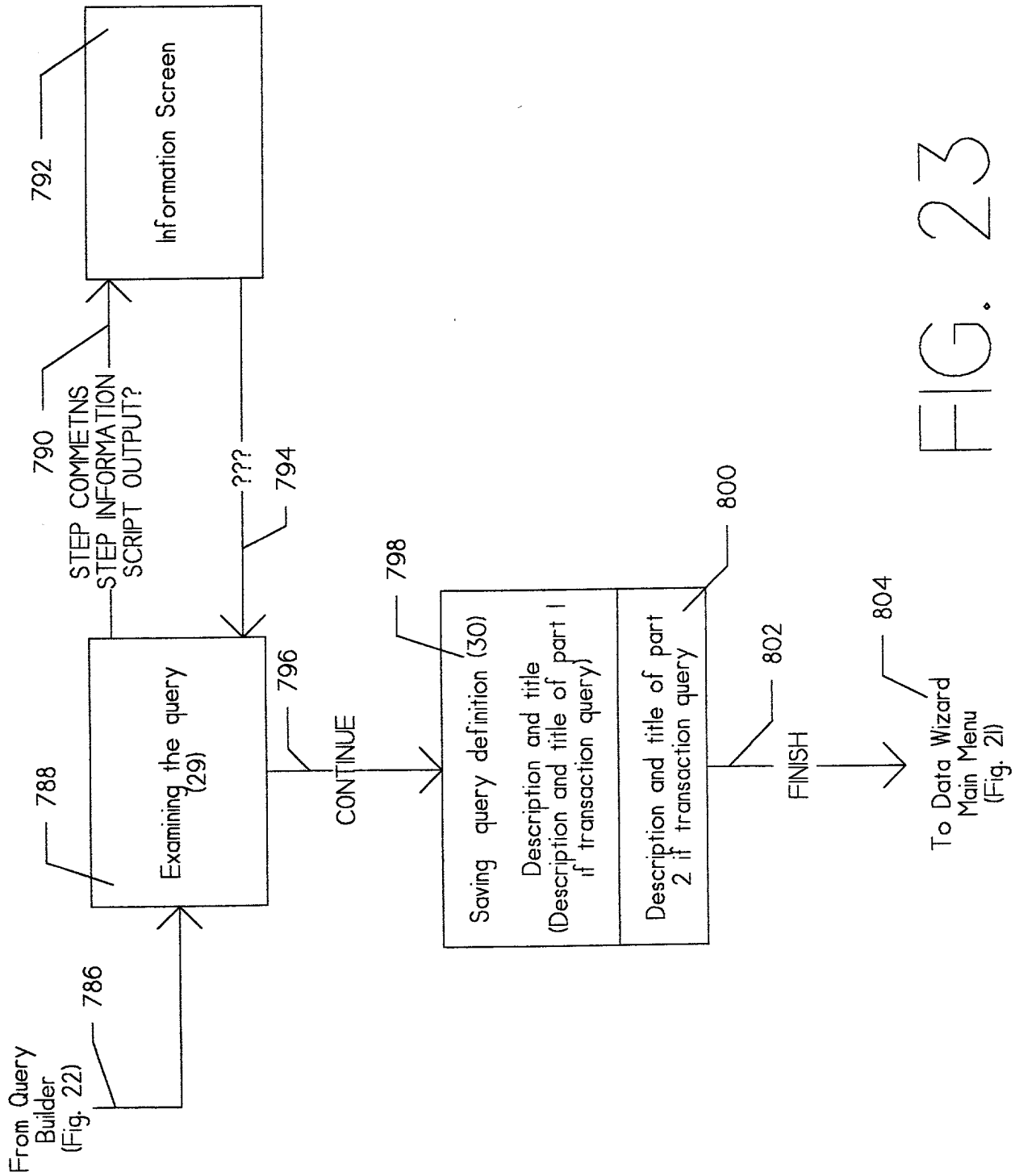


FIG. 23

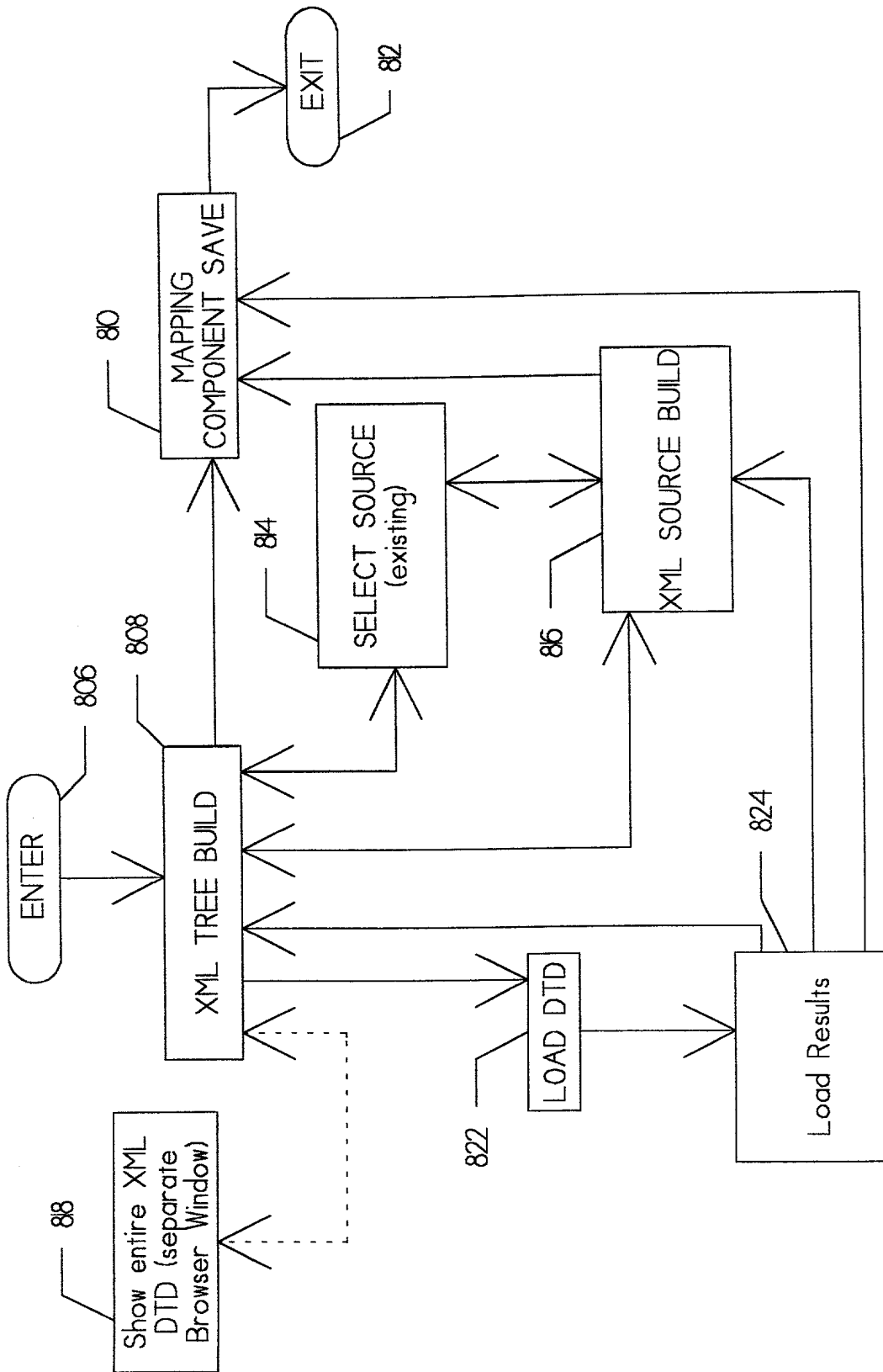


FIG. 24

XML - Mapper -- Microsoft Internet Explorer
File Edit View Favorites Tools Help

Component Builder

UNISYS

828 Home Quit Cancel Help

830 XML MAPPING ELEMENTS

836 ELEMNTS 858

838 Newspaper

840 Article

842 Author

844 Editor

846 Date

848 Edition

850 Headline

852 Byline

854 Lead

856 Body

872 [Redisplay] 874 Sources 876 Save

CONTROLS

Mapping Type ☐ Open 868 ☒ Name Conversion 864

Table Mapping ☒ Complete 866

Element Properties

Item Type ☐ Sequence 860 ☒ Element Form 863

Mapping ☐ Row Iterator 862 ☒ Value 863

FIG. 25

When using the mapping tool, the user can map the data to the database fields.

XML-Mapper -- Microsoft Internet Explorer
File Edit View Favorites Tools Help

838	<input type="checkbox"/> Newspaper	<input type="radio"/> Tables	<input type="checkbox"/> Article	<input type="checkbox"/> Name Conversion
840	<input type="checkbox"/> Article	<input type="radio"/> Article	<input type="checkbox"/> Article	<input type="checkbox"/> Open <input type="checkbox"/> 868
842	<input type="checkbox"/> Author	<input type="radio"/> Author	<input type="checkbox"/> Author	<input type="checkbox"/> Table Mapping <input type="checkbox"/> 866
844	<input type="checkbox"/> Editor	<input type="radio"/> Editor	<input type="checkbox"/> Editor	<input type="checkbox"/> Complete <input type="checkbox"/> 860
846	<input type="checkbox"/> Date	<input type="radio"/> Date	<input type="checkbox"/> Date	<input type="checkbox"/> Element Properties
848	<input type="checkbox"/> Edition	<input type="radio"/> Edition	<input type="checkbox"/> Edition	<input type="checkbox"/> Item Type <input type="checkbox"/> Sequence <input type="checkbox"/> 860
850	<input type="checkbox"/> Headline	<input type="radio"/> Headline	<input type="checkbox"/> Headline	<input type="checkbox"/> Element Form <input type="checkbox"/> Row Rpt <input type="checkbox"/> 861
852	<input type="checkbox"/> Byline	<input type="radio"/> Byline	<input type="checkbox"/> Byline	<input type="checkbox"/> Mapping <input type="checkbox"/> 862
854	<input type="checkbox"/> Lead	<input type="radio"/> Lead	<input type="checkbox"/> Lead	<input type="checkbox"/> Row Iterator <input type="checkbox"/> 863
	<input type="checkbox"/> Body	<input type="radio"/> Body	<input type="checkbox"/> Body	<input type="checkbox"/> Value <input type="checkbox"/> 865
	<input type="checkbox"/> Notes	<input type="radio"/> Notes	<input type="checkbox"/> Notes	<input type="checkbox"/> Actions

Clear Mapping
Add Sibling above
Add Sibling below
Add Childred
Add Attributes
Delete Branch
Compact View
Show Representation

826

FIG. 26

XML -Mapper -- Microsoft Internet Explorer
File Edit View Favorites Tools Help

Component Builder

UNISYS

871 XML MAPPING ELEMENTS 872 [Redisplay] 873 [Save] 874 [Upload DTD] 876

ELEMENTS 858
Root

CONTROLS

Mapping Type
Open ☒ 868
Table Mapping
Complete ☒ 866
Name Conversion
Capital ☒ 864

Element Properties

Item Type
Sequence ☒ 860
Mapping
Row Iterator ☒ 862
Value
Rqrd Rpt ☒ 863

FIG. 27

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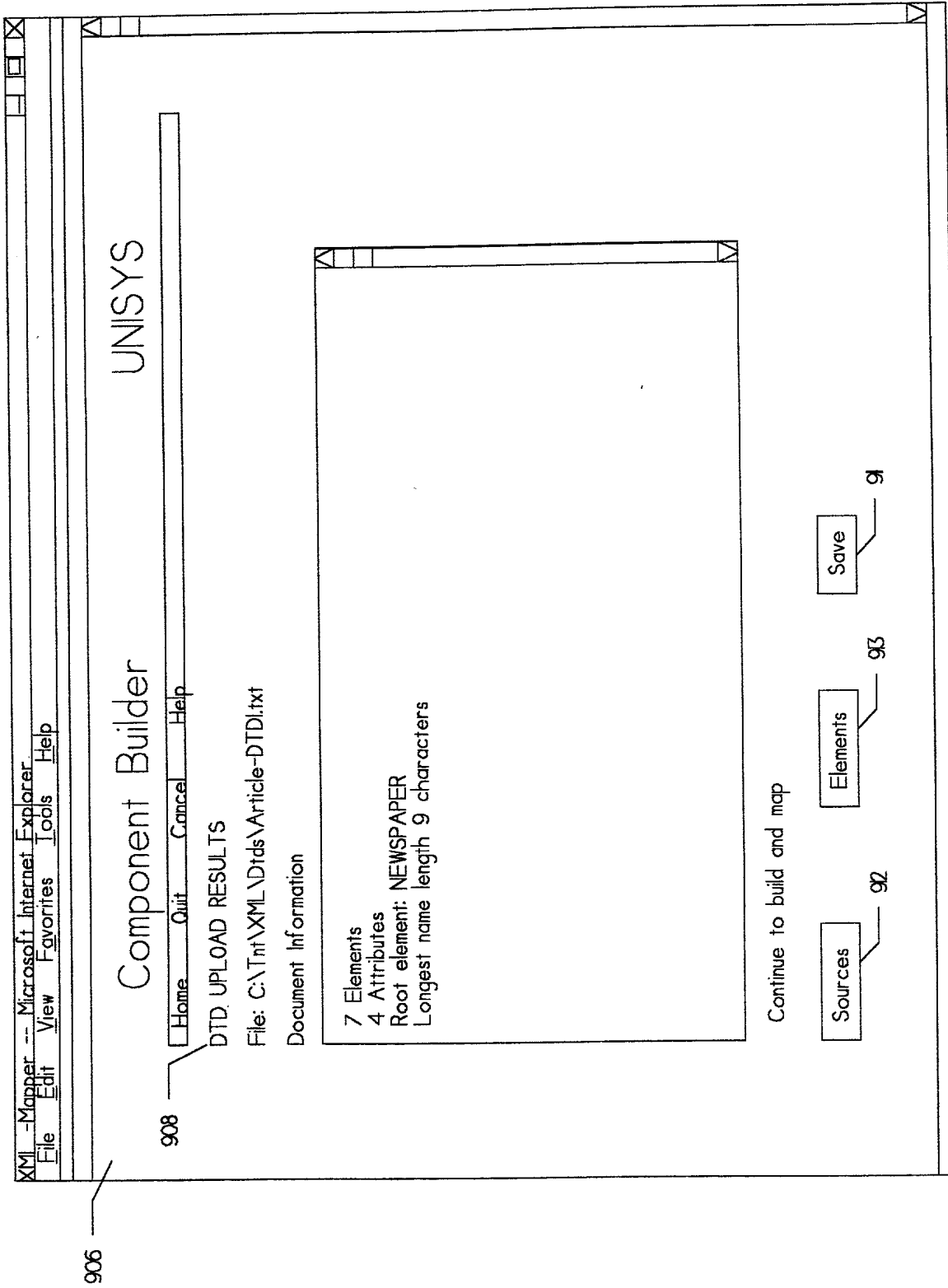


FIG. 28

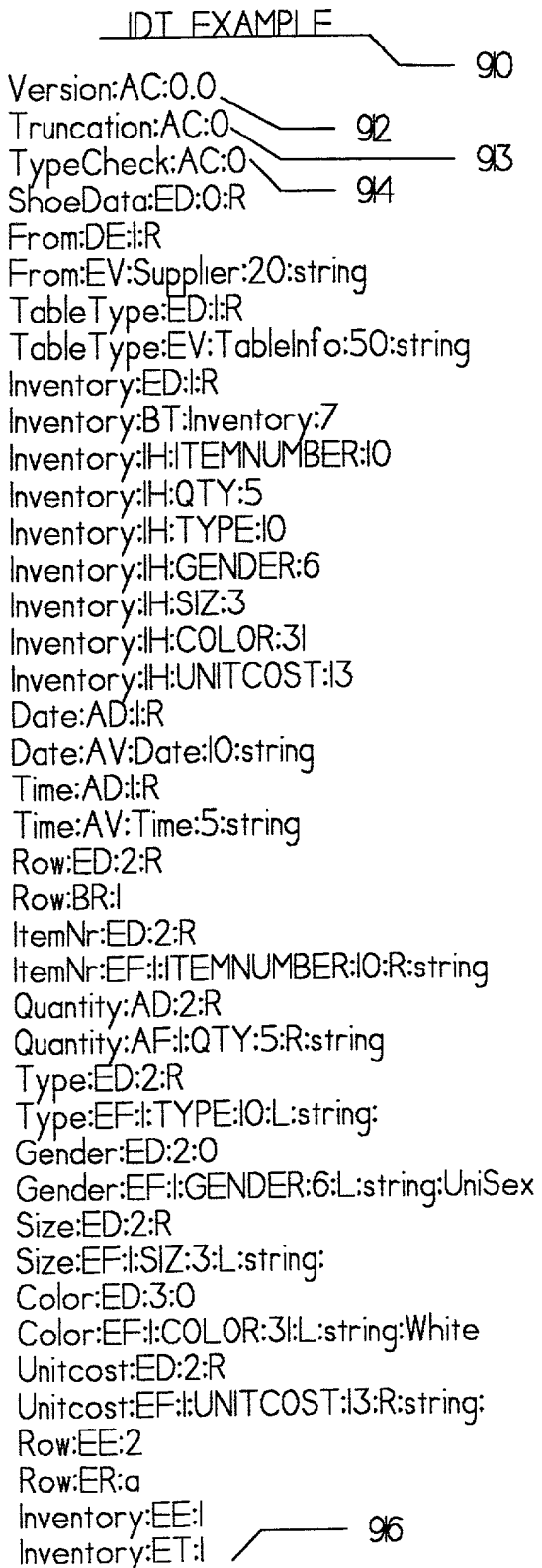


FIG. 29

DTD EXAMPLE 98

<!DOCTYPE ShoeData [

<ELEMENT ShoeData (From, TableType, Inventory)>
<ELEMENT From (#PCDATA)>
<ELEMENT TableType (#PCDATA)>
<ELEMENT Inventory (Row+)>
<!ATTLIST Inventory Date CDATA #REQUIRED
<!ATTLIST Inventory Time CDATA #REQUIRED
<ELEMENT Row (ItemNr, Type, Gener?. Size, Color?. Unitcost)+>
<ELEMENT ItemNr (#PCDATA)>
<!ATTLIST ItemNr Quantity CDATA #REQUIRED
<ELEMENT Type (#PCDATA)>
<ELEMENT Gender (#PCDATA)>
<ELEMENT Size (#PCDATA)>
<ELEMENT Color (#PCDATA)>
<ELEMENT Unitcost (#PCDATA)>

FIG. 30

XML INPUT DOCUMENT EXAMPLE

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```
<?xml version="1.0" encoding="ISO-8859-1"?>
<ShoeData>
  <From>Roseville Store</From>
  <TableType>Low Inventory Count</TableType>
  <Inventory Date>"2000-12-05" Time="11:51">
    <Row>
      <ItemNr Quantity="0">32335</ItemNr>
      <Type>Tennis</Type>
      <Gender>Mens</Gender>
      <Size>6</Size>
      <Color>White/Zen Grey/New Spruce</Color>
      <Unitcost>25.00</Unitcost>
    </Row>
    <Row>
      <ItemNr Quantity="0">35410</ItemNr>
      <Type>Running</Type>
      <Gender>Womens</Gender>
      <Size>5</Size>
      <Color>White/Zen Grey/Neptune Blue</Color>
      <Unitcost>19.70</Unitcost>
    </Row>
    <Row>
      <ItemNr Quantity="0">35411</ItemNr>
      <Type>Running</Type>
      <Gender>Womens</Gender>
      <Size>6</Size>
      <Color>White/Zen Grey/Neptune Blue</Color>
      <Unitcost>19.70</Unitcost>
    </Row>
    <Row>
      <ItemNr Quantity="2">35420</ItemNr>
      <Type>Running</Type>
      <Gender>Womens</Gender>
      <Size>5</Size>
      <Color>White/Chlorine Blue/Hot Lime</Color>
      <Unitcost>19.70</Unitcost>
    </Row>
    <Row>
      <ItemNr Quantity="1">37421</ItemNr>
      <Type>Golf</Type>
      <Gender>Womens</Gender>
      <Size>8</Size>
      <Color>White/Fluorescent Pink</Color>
      <Unitcost>35.00</Unitcost>
    </Row>
  </Inventory>
</ShoeData>
<Color>White/Black-Hot Lime, Neo Teal</Color>
<Unitcost>40.00</Unitcost>
</Row>
<Row>
  <ItemNr Quantity="0">32474</ItemNr>
  <Type>Tennis</Type>
  <Gender>Womens</Gender>
  <Size>8</Size>
  <Color>White/Light Marine-Ultramarine</Color>
  <Unitcost>25.00</Unitcost>
</Row>
<Row>
  <ItemNr Quantity="1">35310</ItemNr>
  <Type>Running</Type>
  <Gender>Mens</Gender>
  <Size>6</Size>
```

FIG. 31

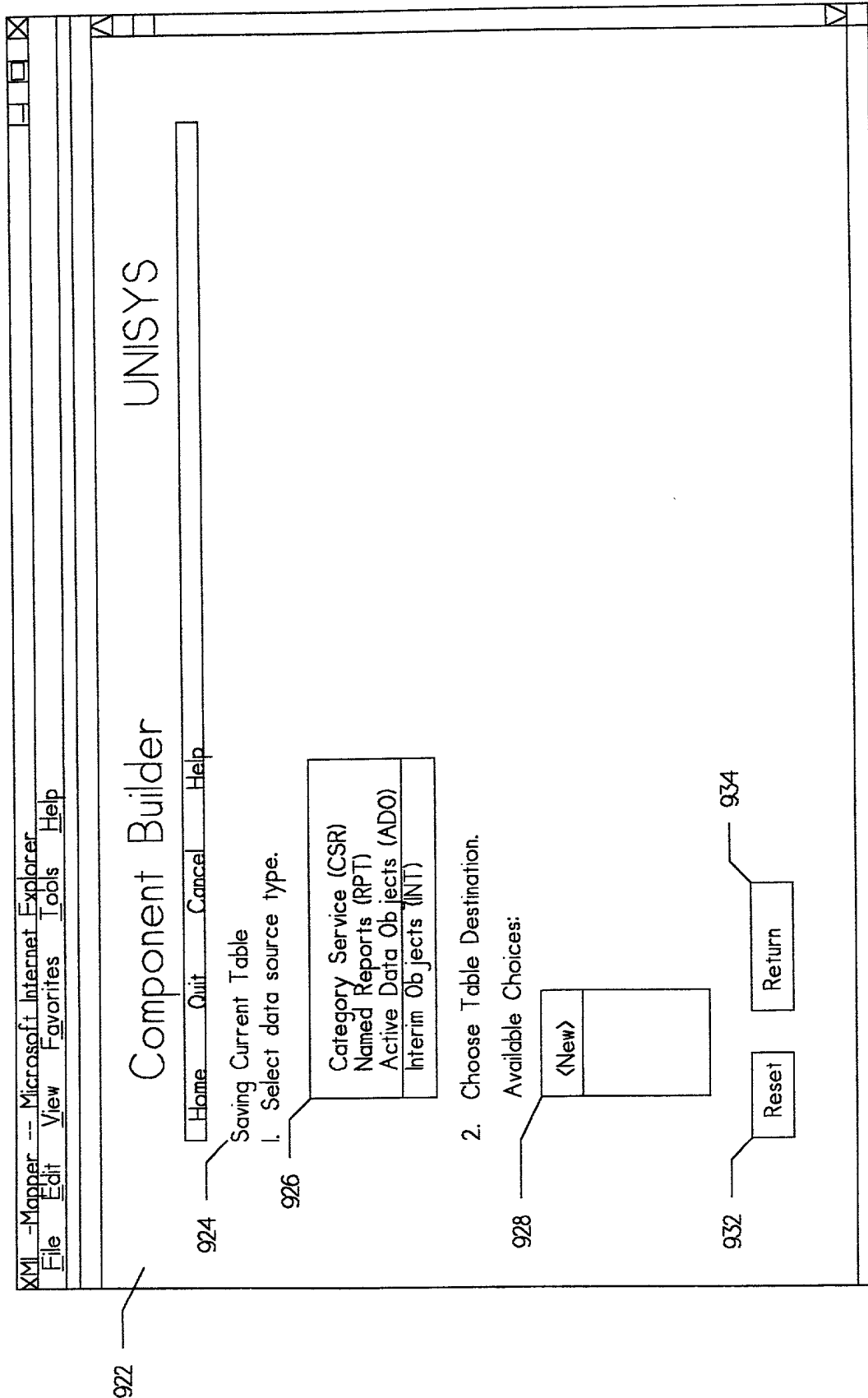


FIG. 32

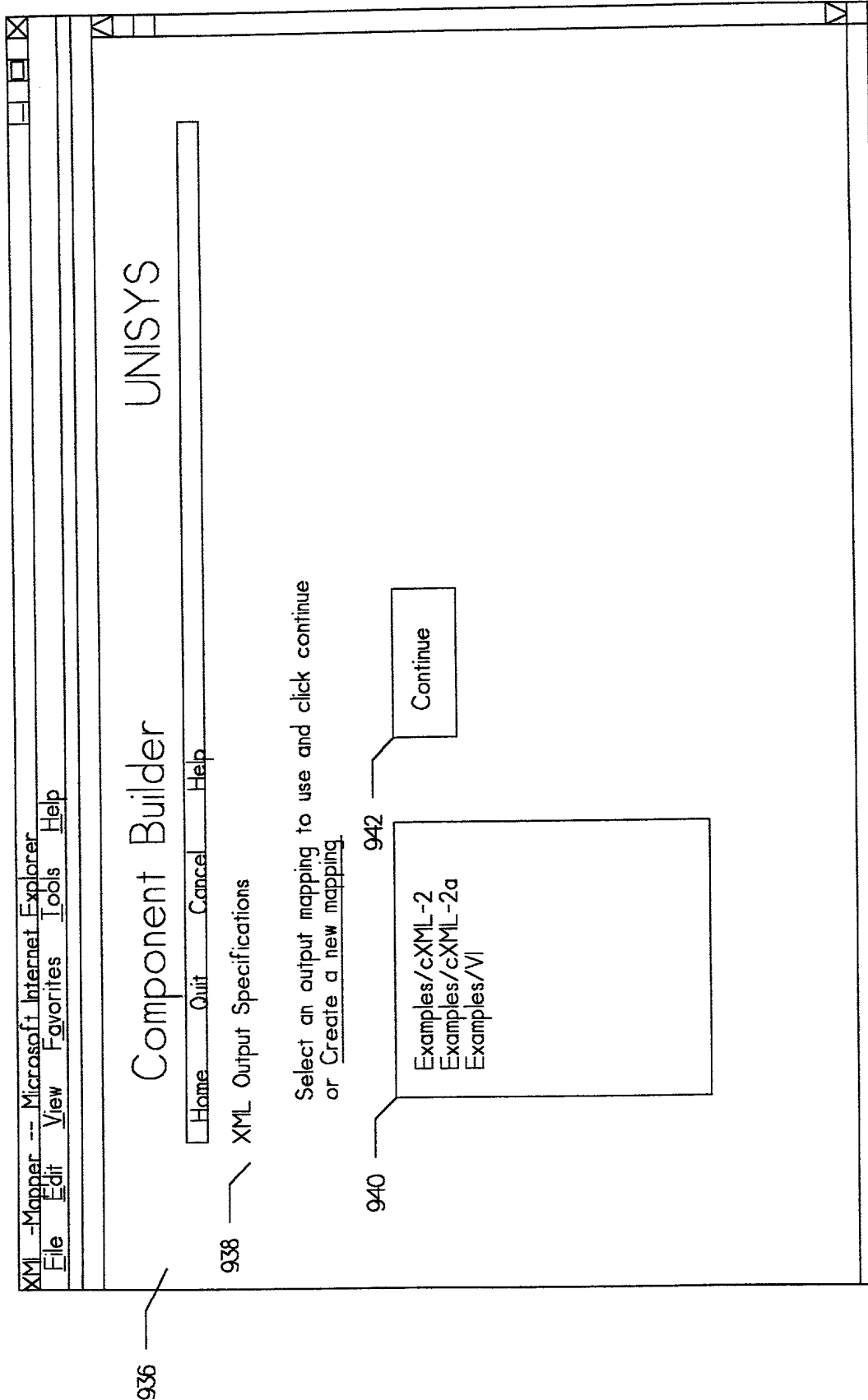


FIG. 33